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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,864	11/12/2003	Theodore Nicolas Schmitt	SCHMITT-16	6707

20151 7590 12/13/2005

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EXAMINER

EDWARDS, NEWTON O

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/706,864	Applicant(s) SCHMITT ET AL.	
	Examiner N Edwards	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12/04</u> | 6) <input type="checkbox"/> Other: ____ |

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1. Claims 1-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim1 line 3 "2 to...." Is vague and indefinite as to the magnitude of 2. Is it 2.0 or 2.10 exp 5 or 2.10 EXP 11 etc?

Claim1 line 4 "a conductivity..." is indefinite and vague as to the type of conductivity applicant is referring to. Is it bulk conductivity or electrical conductivity etc?

Claim 1 line 3 "volume mass...." is indefinite and vague as to what in the composite has this so called volume mass and what does volume mass mean.

Claim 1 overall is vague and indefinite as to components which make up the composite. See lines 5-8 for clarification. Reading claim 1 in light of the spec at page 12-14 reveals nothing as to guidance and direction of components.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification as filed is objected to for failing to provide 1) an adequate written description of the invention and 2) failing to provide an enabling disclosure.

The specification as filed fails to set forth 1) any written description of how to make the claimed heat dissipating structure of claim1 so as to obtain the claimed the thermal

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expansion coefficient, conductivity, and volume mass without undue experimentation.

The specification not only fails to provide written support for the matrix of the composite in claim 1, it also fails to give any guidance or direction in pages 12-14 of spec of which combination of components yield the claimed properties of claim 1. The examples of page 12-14 spec cannot enable any person skill in the art to make the claimed composite (which is a combination of elements) since every example has more than ONE element. The spec also fails to tell the nature of the invention, in view of the scope and breath of the claims, for example which metal or polymer or resin is combined with which reinforcement component which contain microfibers, is combined with which nanofibers so as to obtain the claimed thermal expansion, conductivity, and volume mass without undue experimentation. The predictability of the art of which combination of components in a composite would yield the claimed volume mass or conductivity etc is very low.

Claims 1-44 are rejected under 35 USC 112, first paragraph, for the reasons given in the objection above.

Any inquiry concerning this communication should be directed to N Edwards at telephone number 571-272-1521.



N Edwards
Primary Examiner
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